

SUBJECT: COMPUTER AIDED DRUG DESIGN (BP807ET)

COURSE: FINAL YEAR B.PHARM

UNIT I: INTRODUCTION TO DRUG DISCOVERY & LEAD DISCOVERY, ANALOG
 BASED DRUG DESIGN

TABLE 1: 2-MARK QUESTIONS (Short Answer Type)

Q.No	Question	Exam Mapping (TNMGRMU / GPAT / NIPER / Industry + Year)	Bloom's Taxonomy
1	Define drug discovery.	TNMGRMU (2021), GPAT	Remember
2	List the stages of drug discovery and development.	TNMGRMU (2022), GPAT	Remember
3	What is lead compound?	GPAT (2019), Industry	Understand
4	Define analog based drug design.	TNMGRMU (2020)	Remember
5	What is random screening?	GPAT (2020)	Understand
6	Define non-random screening.	TNMGRMU (2023)	Understand
7	What is serendipitous drug discovery?	GPAT (2018)	Remember
8	Mention two sources of leads from traditional medicine.	TNMGRMU (2021)	Remember
9	Define bioisosterism.	GPAT (2021), NIPER	Remember
10	Give two examples of bioisosteric replacement.	GPAT (2022)	Apply
11	What is lead optimization?	Industry (R&D Interviews)	Understand
12	State the role of clinical observation in lead discovery.	NIPER (2020)	Understand

TABLE 2: 5-MARK QUESTIONS (Short Essay Type)

Q.No	Question	Exam Mapping (TNMGRMU / GPAT / NIPER / Industry + Year)	Bloom's Taxonomy
1	Explain the stages of drug discovery and development.	TNMGRMU (2022), GPAT	Understand
2	Describe lead discovery based on traditional medicine.	TNMGRMU (2021), NIPER	Analyze
3	Compare random and non-random screening methods.	GPAT (2020), NIPER	Analyze
4	Explain serendipitous drug discovery with one example.	GPAT (2019), TNMGRMU	Apply
5	Describe lead discovery based on drug metabolism.	NIPER (2021)	Analyze

6	Explain lead discovery based on clinical observation.	TNMGRMU (2023)	Understand
7	Classify bioisosteres with suitable examples.	GPAT (2021), Industry	Analyze
8	Explain the importance of analog based drug design.	Industry (R&D)	Evaluate
9	Write a short note on bioisosteric replacement.	TNMGRMU (2020)	Apply
10	Discuss the role of screening in lead identification.	GPAT (2022)	Analyze

TABLE 3: 10-MARK QUESTIONS (Long Essay / Case Study Type)

Q.No	Question	Exam Mapping (TNMGRMU / GPAT / NIPER / Industry + Year)	Bloom's Taxonomy
1	Describe in detail the stages of drug discovery and development with a flowchart.	TNMGRMU (2023), GPAT	Understand
2	Explain various rational approaches to lead discovery.	GPAT (2021), NIPER	Analyze
3	Discuss lead discovery approaches based on traditional medicine, screening, and clinical observation.	TNMGRMU (2022)	Analyze
4	Explain analog based drug design in detail with suitable examples.	GPAT (2022), Industry	Apply
5	Discuss bioisosterism, its classification and applications in drug design.	GPAT (2021), NIPER	Analyze
6	Explain bioisosteric replacement with three case studies .	TNMGRMU (2023), NIPER	Evaluate
7	Describe serendipitous drug discovery and its impact on modern drug development with examples.	GPAT (2020)	Evaluate
8	Discuss lead discovery based on drug metabolism and its significance in drug design.	NIPER (2022)	Analyze